WESTON • SPER 53 Haddonfield Road, Cherry Hill, NJ 08002 • (609) 663-7995

TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION
EPA CONTRACT 68-01-7367

MEMORANDUM

TO: Jay Rodstein, OSC, U.S. EPA, Region III PCS #3070

THRU: Stephen Jarvela, DPO, U.S. EPA Region III

THRU: Rich Habrukowich, TATL, Region III

FROM: B. D. Khona, TATM, Region III

SUBJECT: 16th Street Quarry Analysis Review

DATE: September 17, 1985

This report covers a review of the analysis of two drum samples, one split and one blank sample, submitted on 4/23/85 to Envirodyne for organic priority pollutant. The findings offered in this report are based upon a general review of the data provided.

1. Matrix spike recoveries for 4-Nitrophenol came out to be 0%.
2. RRD from matrix spike duplicate for Pentachlorophenol came out to be 103%.
3. Field blank showed contamination of vinyl acetate (62,000 ppm).
4. Reagent blank prepared by EPA sample preparation laboratory showed contamination of 2-Butanone (15,000 ppm).
5. The laboratory reagent blank showed no contamination.
6. High VO surrogate (1-2 Dichloroethane-d4) recoveries for the samples D1, D2, D3, D0. Any possible errors due to high recoveries will be positive.
7. Surrogate spike was not used for pesticides.
8. Although all samples had more than 90% liquid, the results are expressed in micrograms per kilogram.

Conclusion

The following table gives sample number, compounds and values which should be considered as rejected due to contamination of field blank and SMO reagent blank.

Sample #	Compound	Value ppm
D-1	2-Butanone	10,000
	Toluene	110
	Ethylbenzene	40
D-2	2-Butanone	14,000
	Toluene	100
	Ethylbenzene	20
D-3	Vinyl Acetate	15,000
	Toluene	85

All other results are accepted, except results for NON HSL compound and the results with j flag (estimate) should be considered as estimate.

BK:ah

WESTON • SPER 53 Haddonfield Road, Cherry Hill, NJ 08002 • (609) 663-7995

TECHNICAL ASSISTANCE TEAM FOR EMERGENCY RESPONSE REMOVAL AND PREVENTION
EPA CONTRACT 68-01-7367

MEMORANDUM

TO: Jay Rodstein, OSC, U.S. EPA, Region III

PCS #3070
TTD #8410-70

THRU: Stephen Jarvela, DPO, U.S. EPA Region III

THRU: Rich Habrukowich, TATL, Region III

FROM: Anne Marie Gohsler, TAT, Region III

SUBJECT: Review of the 16th St. Quarry Drum Samples

DATE: September 19, 1985

TAT members Anne Marie Gohsler and Greg Janiec accompanied OSC Jay Rodstein to the 16th St. Quarry in Wilmington, Delaware, on January 4, 1985. One drum, which had previously been overpacked and removed from the water by city divers was sampled. Approximately forty (40) drums remain on the bottom of the quarry.

TAT member Anne Marie Gohsler accompanied OSC Jay Rodstein to Dover, Delaware on January 4, 1985 to obtain sample splits from George Bender, DNREC. Two samples were obtained: one was a duplicate of the drum sampled by TAT and one was from a drum whose seams had ruptured when City divers attempted to remove it from the quarry.

All samples were analyzed through EPA's Contract Lab Program (Case #3797) for priority pollutants. The samples, which were classified high hazard, were shipped on January 7, 1985 to Fred C. Hart Laboratories for sample preparation. Envirodyne Engineers, the lab which did the Organics Analyses, did not receive the samples until April 24, 1985.

Results of the organics analysis were received during the last week of June 1985, while results of the inorganics analysis were not received until September 6, 1985.

Low levels of several priority pollutants were identified as shown in the attached data summary. The results of the analysis, however, are questionable because the analysis was delayed for so long and the field and laboratory blanks were contaminated. (Bhupi Khona's September 17, 1985, memo details this situation).

Further investigation at the 16th St. Quarry site is indicated since the results of the January 1985, sampling are questionable and may not be indicative of the contents of the other drums on site.

Summary of 16th St. Quarry drum samples: (Results reported in ug/kg unless otherwise noted).

D0 Field Blank	(C5427 & 850404-01)
Methylene Chloride	800
Vinyl Acetate	62,500
Toluene	110
Ethylbenzene	30
Total Xylenes	90
Di-n-Butyphthalate	3,000
Oxybismethane	8,200
Aluminum	109 mg/kg
Calcium	218 mg/kg
Sodium	2056 + 21 mg/kg

D1 Overpacked Drum	(5428 & 850404-02 850404-03)
Methylene Chloride	590
2-Butanone	10,000
Toluene	110
Ethylbenzene	40
Total Xylenes	250
Methane Oxybis	18,000
Decane	53,000
Aluminum	103 mg/kg
Calcium	319 mg/kg
Iron	<40 mg/kg
Magnesium	81 mg/kg
Sodium	2060 + 6 mg/kg

D2 Split from Ruptured Drum (Obtained from DNREC)	(C5429 & 850404-06)
Methylene Chloride	230
2-Butanone	14,000
Toluene	100
Ethylbenzene	20
Phenol	8,000
Octamethylcyclotetrasiloxane	143,000
Decamethylpentasiloxane	115,000
Calcium	786 mg/kg
Sodium	2090 + 7 mg/kg

Summary of 16th St. Quarry drum samples: (Results reported in ug/kg unless otherwise noted).

D3 Split from Overpacked drum	(C5427 & 850404-01)
Vinyl Acetate	15,000
Toluene	85
Phenol	870
Methyl Ether	30,000
Decane	13,000
Aluminum	230 mg/kg
Calcium	7,660 mg/kg
Iron	1,111 mg/kg
Magnesium	238 mg/kg

Lab Blank	(C5996 & 850404-08)
2-Butanone	15,000
Toluene	110
Total Xylenes	110
Methyl Ether	41,000
2-Pentanone	11,000
Aluminum	291 mg/kg
Barium	126 mg/kg
Calcium	***
Manganese	<100 mg/kg
Sodium	***

*Insufficient Sample

[illegible]

[illegible] Project

SAFETY PLAN

Date: 12/27/84

Region: 3

TDD#: _____

POS#: 3070

A. Incident Description

1. Location: 16th Street Quarry Wilmington, DE 2. Date: 12/27/84

3. Type: Spill ( ) Fire ( ) HW Site (✓) Other _____

4. Status POTENTIAL HAZARDOUS WASTE SITE

5. Response Objectives PRELIMINARY SITE ASSESSMENT, DETERMINE EXTENT OF THREAT TO PUBLIC HEALTH

6. Background Review: Complete ( ) Partial (✓)

If partial, why? _____

7. Hazard Level: High ( ) Moderate ( ) Low (✓) Unknown (✓)

Inhalation ( ) Ingestion (✓) Contact (✓) Radiation ( )

8. Site Plan/Sketch attached Yes ( ) No (✓)

9. Background Material attached Yes ( ) No (✓)

B. Material Description

1. Type: Liquid (✓) Solid ( ) Sludge (✓) Vapor/Gas ( )

2. Chemical Name/Class VOLATILE ORGANICS, OIL

3. Characteristics: Corrosive ( ) Ignitable (✓)

2. [illegible] (cont'd)

3. Characteristics(cont'd)- Biological Agent ( )

Volatile (✓) Toxic ( ) Reactive ( )

4. Toxicity: TLVs _____ IDLHs _____

5. Special Hazards DRUMS SUBMERGED IN QUARRY

6. Acute Exposure Symptoms _____

C. Site Description

1. Size 1-2 ACRES

2. Surrounding Population REZ. HIGH, BOY'S CLUB ADJ. TO SITE

3. Buildings/Homes MOSTLY INDUSTRIAL ON RIVER SIDE.

4. Topography FLOODPLAIN OF BRANDYWINE RIVER

5. Receiving Waters BRANDYWINE RIVER

6. Weather _____

7. Unusual Features _____

8. Site History SUBMERGED DRUMS SITED BY LOCAL DIVERS & REPORTED TO DNREC.

D. Personnel Protection

1. Entry Level of Protective clothing: A ( ) B (✓)
C ( ) D ( )

2. If not B, why? _____

D. Personnel Protection (cont'd)

3. Site Instrument Readings:

% O2 _____ % LEL _____

Radioactivity _____ HNU 45 ppm

OVA _____ Other _____

4. If no site readings, why? _____

_____

5. Was protective level up or downgraded: Yes ( ) No (✓)

Up or downgraded to: A ( ) B ( ) C ( ) D ( )

Why _____

_____

_____

Actual Change: _____

_____

6. Respirator Protective Equipment:

SCBA ✓ _____ Canister Type _____

Gas Mask _____ Cartridge Type _____

Ultra Twin _____

Dust Mask _____

7. Protective Clothing:

TYVEK		
RUBBER GLOVES		

8. Field Monitoring Equipment and Materials:

HNU		

E. Decontamination Procedures

1. Attach sketch showing Exclusion Zone, Contamination Reduction Zone, Support Zone and numerically labelled Decontamination Stations.
2. For each decontamination station note procedure and materials need on an attachment page.

F. General Information

1. Team members

ANNE MARIE GOHSLER _____

GREG JANEIC _____

_____ _____

2. Site Safety Coordinator ANNE MARIE GOHSLER

G. Emergency Information

1. Have nearby people been evacuated: Yes ( ) No (✓)

If yes over how large and area?_____

Who initiated the evacuation?_____

2. First Aid Instructions _____

_____

_____

3. Sources of help:

	NAME	TOWN	PHONE	NOTIFIED Yes	NOTIFIED No
Fire		WILMINGTON	911	(✓)	( )
Police		WILMINGTON	911	(✓)	( )
Ambulance		WILMINGTON	911	( )	(✓)

3. Sources of help (cont'd)

	NAME	TOWN	PHONE (302)	NOTIFIED Yes	NOTIFIED No
Hospital	WILMINGTON MEDICAL CTR, ST. FRANCIS	WILMINGTON "	428-1212 421-4100	( )	(✓)
Poison Info		WILMINGTON	655-3389	( )	( )
Airport				( )	( )
Heliport				( )	( )
Site Tel				( )	( )
Nearest Tel	INSPECTOR JOHN DOUGHERTY WILM. POLICE DEPT.	WILMINGTON	(302) 571-4452	(✓)	( )

4. Emergency Telephone Numbers

WESTON Hot Line	215-524-1925 or 1926
WESTON NPO	215-431-0797 or 0798 or 215-692-3030
P. B. Lederman - NPM	201-665-0359 (Home)
S. M. Gertz - HSO	215-667-5461 (Home)
Medical Emergency	513-421-3063 (Nat'l Service)
EPA - ERT Emergency	201-321-6660
Chemtrec	800-424-9300
Centers For Disease Control	404-329-3311 (day) 404-329-3644 (night)
National Pesticide Medical Emergency	800-845-7633 (Regional Services)

Prepared by ANNE MARIE GOHSLER

Date 12/27/84

Approved by _____

Date _____

FOR HSO USE ONLY

Reviewed and Comments _____

Action Required? Yes ( ) No ( ) If yes, what action_____

Followup carried out? Date_____

_____ _____

S.O. Signature Date